

WHAT IS CLAIMED IS:

1. A video camera comprising:

an image sensor for converting incident light into an electric signal;

5 first means for converting the electric signal generated by the image sensor into a digital video signal;

a memory having a first storage area for storing segments of the digital video signal generated by the first means on a frame-by-frame basis;

second means for detecting a shake of a camera body, and

10 generating an analog detection signal representative of the detected shake;

an amplifier for amplifying the analog detection signal generated by the second means to generate an analog amplification-resultant signal;

15 third means for converting the analog detection signal generated by the second means and the analog amplification-resultant signal generated by the amplifier into a digital detection signal and a first digital amplification-resultant signal respectively;

fourth means for amplifying a signal value represented by the digital detection signal generated by the third means on a digital basis to generate a second digital amplification-resultant signal;

20 fifth means for deciding whether or not a signal value represented by the first digital amplification-resultant signal remains greater than a predetermined reference value during at least a prescribed time interval;

sixth means for selecting the second digital amplification-resultant signal when the fifth means decides that the signal value represented by the first digital amplification-resultant signal remains greater than the  
25 predetermined reference value during at least the prescribed time interval, and selecting the first digital amplification-resultant signal when the fifth means decides that the signal value represented by the first digital

amplification-resultant signal does not remain greater than the predetermined reference value during at least the prescribed time interval;

seventh means for generating a shake corrective signal in response to the signal selected by the sixth means;

5 eighth means for reading out segments of the digital video signal from a second storage area movable within the first storage area of the memory to generate a correction-resultant video signal; and

ninth means for moving the second storage area relative to the first storage area in response to the shake corrective signal generated by the  
10 seventh means.

2. A method of processing an information signal, comprising the steps of:

subjecting a first analog signal to linear operation with first and  
15 second gains to generate second and third analog signals respectively, the second gain being higher than the first gain;

feeding the second analog signal and the third analog signal into an A/D converter on a time sharing basis to convert the second analog signal and the third analog signal into a first digital signal and a second digital  
20 signal respectively;

deciding whether or not the A/D converter is saturated by the third analog signal;

transmitting the first digital signal and discarding the second digital signal when it is decided that the A/D converter is saturated; and

25 transmitting the second digital signal and discarding the first digital signal when it is decided that the A/D converter is not saturated.

3. A method of processing an information signal, comprising the steps

of:

converting a portion of an analog signal which has an amplitude less than a predetermined reference value into a first digital signal;

converting a portion of the analog signal which has an amplitude  
5 equal to or greater than the predetermined reference value into a second digital signal; and

multiplexing the first and second digital signals on a time sharing basis.

10 4. A video camera comprising:

first means for detecting a shake of a camera body, and generating a first analog signal representative of the detected shake;

second means for subjecting the first analog signal generated by the first means to linear operation with first and second gains to generate  
15 second and third analog signals respectively, the second gain being higher than the first gain;

an A/D converter;

third means for feeding the second analog signal and the third analog signal to the A/D converter on a time sharing basis to convert the  
20 second analog signal and the third analog signal into a first digital signal and a second digital signal respectively;

fourth means for deciding whether or not the A/D converter is saturated by the third analog signal;

fifth means for selecting the first digital signal and discarding the  
25 second digital signal when the fourth means decides that the A/D converter is saturated, and selecting the second digital signal and discarding the first digital signal when the fourth means decides that the A/D converter is not saturated; and

sixth means for generating a shake corrective signal in response to the signal selected by the fifth means.

5. A video camera as recited in claim 4, wherein the second means  
5 comprises an amplifier for amplifying the first analog signal into the third analog signal, and means for directly using the first analog signal as the second analog signal.

6. A video camera as recited in claim 4, wherein the second means  
10 includes an amplitude modulator for subjecting the first analog signal to amplitude modulation to generate the second and third analog signals.

7. A video camera as recited in claim 4, wherein the second means  
15 comprises an attenuator for attenuating the first analog signal into the second analog signal, and means for directly using the first analog signal as the third analog signal.

8. A video camera comprising:  
first means for detecting a shake of a camera body, and generating  
20 an analog signal representative of the detected shake;  
second means for converting a portion of the analog signal which has an amplitude less than a predetermined reference value into a first digital signal;  
third means for converting a portion of the analog signal which has  
25 an amplitude equal to or greater than the predetermined reference value into a second digital signal; and  
fourth means for generating a shake corrective signal in response to the first and second digital signals generated by the second and third

means.

9. A video camera as recited in claim 8, wherein the third means comprises a coring circuit for subjecting the analog signal to a coring  
5 process to generate a coring-resultant signal, and an A/D converter for converting the coring-resultant signal into the second digital signal.

10. A video camera comprising:

first means for detecting a shake of a camera body, and generating  
10 an analog detection signal representative of the detected shake;

second means for converting the analog detection signal generated by the first means into a digital detection signal having a variable resolution as viewed in an amplitude direction;

third means for detecting an amplitude of the analog detection  
15 signal;

fourth means for deciding whether or not the amplitude detected by the third means is smaller than a predetermined reference value; and

fifth means for setting the resolution of the digital detection signal to a first value when the fourth means decides that the amplitude is smaller than the  
20 predetermined reference value, and setting the resolution of the digital detection signal to a second value smaller than the first value when the fourth means decides that the amplitude is not smaller than the predetermined reference value.

25 11. A video camera comprising:

an image sensor for converting incident light into an electric signal;

first means for converting the electric signal generated by the image sensor into a digital video signal;

a memory having a first storage area for storing segments of the digital video signal generated by the first means on a frame-by-frame basis;

second means for detecting a shake of a camera body, and

generating an analog detection signal representative of the detected shake;

5        an attenuator for attenuating the analog detection signal generated by the second means to generate an analog attenuation-resultant signal;

third means for converting the analog detection signal generated by the second means and the analog attenuation-resultant signal generated by the attenuator into a digital detection signal and a digital

10       attenuation-resultant signal respectively;

fourth means for amplifying a signal value represented by the digital attenuation-resultant signal generated by the third means on a digital basis to generate a digital amplification-resultant signal;

15       fifth means for deciding whether or not a signal value represented by the digital detection signal remains greater than a predetermined reference value during at least a prescribed time interval;

sixth means for selecting the digital amplification-resultant signal when the fifth means decides that the signal value represented by the digital detection signal remains greater than the predetermined reference value  
20       during at least the prescribed time interval, and selecting the digital detection signal when the fifth means decides that the signal value represented by the digital detection signal does not remain greater than the predetermined reference value during at least the prescribed time interval;

25       seventh means for generating a shake corrective signal in response to the signal selected by the sixth means;

eighth means for reading out segments of the digital video signal from a second storage area movable within the first storage area of the memory to generate a correction-resultant video signal; and

ninth means for moving the second storage area relative to the first storage area in response to the shake corrective signal generated by the seventh means.